Assignment

Read Carefully:

1. This assignment should be submitted online in VEUS as pdf file on or before 18/11/2020 (Wednesday) 9:00 pm.

2. The assignment must be submitted as one pdf file. On top of the assignment your **name, ID and section** should be mentioned clearly. You can prepare the assignment by hand (must use ruler, must keep paper neat and clean, and understandable) or on computer.

3. For any query regarding this assignment contact me over MS Teams.

Question (10 points):

Assume your ID is AB-CDEFG-H. Convert E, F, and G into 8-bit ASCII characters using even parity. Convert this 24-bits digital data into digital signal using the following line coding schemes:

a) Bipolar AMI
b) Polar NRZ-L
c) Polar differential Manchester
d) 2B1Q
e) MLT-3

If the bitrate is EFGH*100 what will be required average bandwidth in these schemes. Comment about the DC component and baseline wandering nature of these schemes.

Tips: If your ID is 17-50438-2 then E = 4, F = 3, and G = 8. Using even parity ASCII representation

4 is 10110100
3 is 00110011
8 is 10111000

So, the 24-bits digital data is 101101000011001110111000. We will convert this to digital signal using mentioned line coding schemes.